HPLC sampling protocol used at Antares Cartagena station

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1. Introduction

Antares Cartagena station is located at 10 km offshore, across from the Cartagena Bay/Caribbean Sea at 75º 36' W- 10º 22'N in Cartagena, Colombia. Activities in the station are coordinated by the General Maritime Directorate through for the Caribbean Oceanographic and Hydrographic Research Center (CIOH).

Activities at Antares Cartagena station started in 2008 when the CIOH joined network ANTARES monitoring (see http://www.antares.ws/?p=station.php&st=7) (see http://www.antares.ws/?p=station.php&st=7). During these years the CIOH obtained of the Station in situ data from CTDO of temperature, pressure, salinity, oxygen and fluorescence. Similarly, water samples are taken at discrete depths with Niskin bottles, and measured temperature, salinity, oxygen and pH through multiparameter probe.

Assays for determining chlorophyll, planktonic community analysis, determination of nutrients (nitrate, nitrite, ammonium, orthophosphates and silicates) and SST, are performed in laboratory CIOH which is accredited under NTC ISO / IEC 17025:2001 for physic- chemical analysis of marine and estuarine waters

2. Sample collection

Water collection. Water samples to determine the concentration of chlorophyll and other pigments are taken at the surface and discrete depths using Niskin bottles. Three liters of the water sample is transferred through a funnel into a dark container previously flushed with the same sample. Samples are refrigerated until analysis in the laboratories of CIOH.

Filtering. A volume of 3000 ml of seawater depth of each sample was filtered through glass fiber filters with a porosity of 0.45 microns. The filter surface water samples are to be arranged neatly folded in eppendorf tubes labeled and protected from light with aluminum foil. The filters of the remaining

samples are used for determining chlorophyll spectrophotometrically using 90% acetone as a solvent for the extraction of pigments according to Parsons *et al.* (1984).

Storage. Samples are stored in liquid nitrogen immediately after being filtered. Finally, the samples are shipped overseas inside a cardboard-wrapped polystyrene container with enough amount of dry ice until arriving to destiny. Particularly, these samples were transported in dry ice to Scripps and then in a liquid nitrogen dewar to NASA for analysis by HPLC.

3. Caveats of the data

The data analyzed by HPLC correspond to replicas of surface water samples

4. References

Parsons, T. R., Y. Maita and C. M. Lalli (1984): A Manual of Chemical and Biological Methods for Seawater Analysis. Pergamon Press, Oxford, 173 pp.